

Forest View Acres Water District

Operations Report – February and March 2011
....Prepared by Gabrielle Begeman

Treatment Plants:

Arapahoe Water Plant:

- We have finalized the slight improvements and fail safes at the AWP and it has been running in auto for the last 2 weeks successfully.
- We have received the 15 Hp rebuilt motor and spare booster pump side. They are marked and in the AWP.
- We have worked with Kempton to install the check valve downstream of the booster pump as a fail-safe to prevent over-pressurization of the filter housings if something were to fail upstream.
- We have hooked up the automatic chlorine analyzer to come on with the well, to give us an indication of well run times as the chlorine residual is plotted on the chart when running and off when not.
- There is some concern with the new booster pump motor as the pump wants to pump more water than the well can make. This causes a vacuum on the filter vessels and associated piping as well as a slight shake of the filter skid. A possible remedy for this would be to install a VFD on the booster pump. Xcel Energy is providing rebates for their customers for purchasing and installing new motors and VFD's. See http://www.xcelenergy.com/Colorado/Business/Programs/Resources/ConservationRebates_Incentives_Business/Pages/Motor_Efficiency.aspx and <http://www.xcelenergy.com/SiteCollectionDocuments/docs/CO-Bus-Motors-Motor-Rebate-Application.pdf> and <http://www.xcelenergy.com/SiteCollectionDocuments/docs/CO-Bus-Motors-Drive-Rebate-Application.pdf> for more information.
- The well is not able to operate at reduced Hz via the VFD any longer due to the issue listed above.

Booster Station

- With the help of Kempton, an inline strainer was installed on the line to protect the pressure relief valve. The new positioning of the fine mesh screen within the 2 ½" inline strainer is fully protecting the pumps and associated valves at the booster station.

- Devin came up and installed a new pump side on the 20 Hp pump. It is now working well and in tandem with the AWP.
- The first pump side that has major rock damage is beyond repair, but will be kept at the booster station as a reminder.
- The current "spare" pump side may have slight rock damage, but will probably work in the event of an emergency.
- The 7.5 Hp pump will not work in tandem with the AWP, as it is currently configured.
- The fire hoses have been wrapped up and the borrowed ones have been returned to the fire station.

Surface Water Plant:

- The plant has been running well. We have noticed that we can get more production when the tank level is about half full. Throughout February, the surface plant was able to maintain the tank and fulfill demand on its own.
- During the month of February the tank level hovered around 10' (40% full).
- According to the CDPHE rules on surface water treatment, we should be measuring the combined effluent, as well as the effluent coming off of each secondary filter. We have hooked up one of the 2 turbidimeters to the combined filter effluent, the other is measuring 1 of the secondary filters. We may need to purchase another turbidimeter to be in full compliance. This will only be a problem if relays and alarms fail and we end up processing water that does not meet the standards.

Distribution system

- The valve on the South end of Granite Cir has had risers installed to bring it up to grade. The asphalt has been patched and there is no longer a hole in the road.
- We have begun to do routine maintenance on isolation valve boxes throughout the district. This includes vacuuming them out and exercising the valves. All of this is noted on the map at the AWP. Eventually we will have a maintenance log for each valve which will note if it operates, seats, left hand open and how deep it is below grade.

Action Items:

1. Someone to apply for the Xcel Energy rebate program.



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